the intermediate layer (9) independently comprise the first reflector material (4) or the second reflector material (5), and whereby the material composition of the single quantum well (6), its layer thickness and its strain in the layer structure within a wavelength range all serve to define an absorbing effect, this wavelength range includes the laser wavelength λ_L, and moreover, the degree of the saturable effect is defined by the selection of the distance between the strained single quantum well (6) and the boundary surface of the cap layer adjacent to a surrounding gaseous medium (10).

B' cont'd

13. (Twice Amended) The saturable reflector according to any of Claims 1 through 5 or 22, characterized in that the saturable absorbing effect is adjustable through the selection of the position of the strained-layer single quantum well (6) within the structure of the adjacent layers, whereby these layers each have a greater layer thickness than the single quantum well.

B2

14. (Twice Amended) A saturable absorber for a laser wavelength λ_L, comprising a layer sequence (3) of several semiconductor layers with a saturable absorbing effect on a substrate (1) that is transparent for the laser wavelength, characterized in that the layer sequence (3) comprises a strained-layer single quantum well (6) and a cap layer (7), whereby the material composition of the single quantum well (6), its layer thickness and its strain in the layer structure all serve to define an absorbing effect within a wavelength range, moreover, a saturable effect is defined by the selection of the position within the standing wave of a laser resonant cavity.

Please add new claims 24-26 as follows:

24. (New) The saturatable reflector of any one of claims 1 through 5, 7-13 and 22 wherein the material composition of cap layer (7) and the material composition of intermediate layer (9) comprise the material of last layer (4') of reflector(2).

B3

25. (New) A saturable reflector for a laser wavelength λ_L wherein a reflector (2) is applied onto a surface of a substrate (1), and a layer sequence (3) with a saturable absorbing effect is applied onto the reflector, characterized in that the layer sequence (3) comprises a strained-layer

single quantum well (6) and a cap layer (7), whereby the material composition of the single quantum well (6), its layer thickness and its strain in the layer structure within a wavelength range all serve to define an absorbing effect, this wavelength range includes the laser wavelength λ_L, and moreover, the degree of the saturable effect is defined by the selection of the distance between the strained single quantum well (6) and the boundary surface of the cap layer adjacent to a surrounding gaseous medium (10), wherein an absorption maximum for the laser wavelength λ_L is achieved by setting the lattice strain of the single quantum well and wherein said lattice strain lies in a range that is defined by the lattice mismatch between said single quantum well and the surrounding material of between 0.005 and 0.02 nm.

B3 cont'd

26. (New) A saturable absorber for a laser wavelength λ_L, comprising a layer sequence (3) of several semiconductor layers with a saturable absorbing effect on a substrate (1) that is transparent for the laser wavelength, characterized in that the layer sequence (3) comprises a strained-layer single quantum well (6) and a cap layer (7), whereby the material composition of the single quantum well (6), its layer thickness and its strain in the layer structure all serve to define an absorbing effect within a wavelength range, moreover, a saturable effect is defined by the selection of the position within the standing wave of a laser resonant cavity, wherein an absorption maximum for the laser wavelength λ_L is achieved by setting the lattice strain of the single quantum well and wherein said lattice strain lies in a range that is defined by the lattice mismatch between said single quantum well and the surrounding material of between 0.005 and 0.02 nm.

REMARKS

Claims 1-5 and 7-26 are pending. Claim 6 is canceled without prejudice. Claims 1, 13 and 14 are amended, and claims 24 to 26 have been added. The amendment of claim 1 is supported by the specification, for example, at page 11, 3rd paragraph, page 19, 2nd and 3rd paragraphs, page 21, 2nd and 3rd paragraphs and page 22, last paragraph. Claim 13 is amended to correct the multiple dependent form, and there is no intention of changing the scope of claim 13. The amendment of claim 14 is supported by the specification throughout. New claim 24 is supported by the specification, for example, at page 21, 3rd paragraph and Fig. 3. New claim 25